

ABSTRACT OF DISCLOSURE

A method for fabricating capacitor capable of simplifying formation processes of ruthenium (Ru) layer for storage node electrode formation of capacitor comprises the steps of: forming a first insulating layer having a first opening exposing a predetermined region on a substrate; forming a conductive plug filled within the first opening; forming a second insulating layer having a second opening exposing the conductive plug on the first insulating layer; forming a conductive layer covering the second opening by sequentially performing PECVD and LPCVD processes on the second insulating layer; exposing the second insulating layer by performing etch back on the conductive layer; forming a storage node electrode of the capacitor by removing the second insulating layer; and forming a dielectric layer to cover the storage node electrode; and forming a plate electrode. In an alternative embodiment, a thermal treatment under an N₂ gas supply is performed after the step of forming the conductive layer.